Please type a plus sign (+) inside the box ☒

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

SHEET 1 OF 6

COMPLETE IF KNOWN	
Application Number	09/724,179
Filing Date	11/28/00
First Named Inventor	Lin
Group Art Unit	2874
Examiner Name	Unknown
Docket Number	LIGHT1320

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	U.S. Patent Document Kind Code[2] (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	4,618,210		Kondo	10-21-1986	
	2	4,747,654		Yi-Yan	03-31-1988	
	3	4,813,757		Sakano et al.	03-21-1989	
	4	4,846,542		Okayama	07-11-1989	
	5	5,002,350		Dragone	03-26-1991	
	6	5,013,113		Soref	05-07-1991	
	7	5,039,993		Dragone	08-13-1991	
	8	5,243,672		Dragone	09-07-1993	
	9	5,412,744		Dragone	05-02-1995	
	10	5,450,511		Dragone	09-12-1995	
	11	5,467,418		Dragone	11-14-1995	
	12	5,581,643		Wu	12-03-1996	
	13	5,706,377		Li	01-06-1998	
	14	5,841,931		Foresi et. al.	11-24-1998	
	15	5,938,811		Greene	08-17-1999	
	16	6,108,478		Harpon et al.	08-22-2000	
	17	6,118,909		Chen et al.	09-12-2000	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Foreign Patent Document Number[4]	Foreign Patent Document Kind Code[5] (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	18	EPO	0647861A1		AT&T Corp.	12.04.1995		
	19	EPO	0985942A2		Lucent Technologies, Inc.	15.03.2000		
	20	Japan	2-179621		Oki Electric Ind. Co. Ltd.	12.7.1990		
	21	Japan	6-186598		Hitachi Ltd.	8.7.1994		
	22	Japan	63-197923		NEC Corp.	16.8.1988		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	23	ABE, et al., *Optical Path Length Trimming Technique using Thin Film Heaters for Silica-Based Waveguides on Si*, Electronics Letters , September 12, 1996, Vol. 32-No. 19, pp. 1818-1820.	
	24	ALBERT, J., *Planar Fresnel Lens Photoimprinted in a Germanium-Doped Silica Optical Waveguide*, Optics Letters, May 15, 1995, Vol. 20-No. 10, pp 1136-1138	
	25	AMAN, M.C., *Calculation of Metal-Clad Ridge-Waveguide (MCRW) Laser Modes by Mode Coupling Technique*, Journal of Lightwave Technology, VOL LT-4, No.6, June 1986, pg 689-693	

Examiner Signature		Date Considered	12/03/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1]Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two letter-code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached.

Please type a plus sign (+) inside the box ☒

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets necessary)

SHEET 2 OF 6

COMPLETE IF KNOWN	
Application Number	09/724,179
Filing Date	11/28/00
First Named Inventor	Lin
Group Art Unit	2874
Examiner Name	Unknown
Docket Number	LIGHT1320

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	26	AMANN, M.C. et al, *Calculation Of The Effective Refractive-Index Step For The Metal-Cladded-Ridge-Waveguide Laser*, Applied Optics, VOL 20, No.8, Apr 15 1981, pg 1483-1486	
	27	BABA, S. et al., *A Novel Integrated-Twin-Guide (ITG) Optical Switch with a Built-in TIR Region*; IEEE Photonics Technology Letters; VOL 4, No.5, May 1992, pg 486-488	
	28	BENSON, T.M., *Etched-Wall Bent-Guide Structure for Integrated Optics in the III-V Semiconductors*; Journal of Lightwave Technology, VOL LT-2, No.1, Feb 1984; pg 31-34	
	30	BERRY, G.M. et al., *Analysis Of Multiplayer Semiconductor Rib Waveguides With High Refractive Index Substrates*, Electronics Letters; VOL 29, No.22; Oct 28 1993, pg 1941-1942	
	31	BETTY, I. et al., *A Robust, Low-Crosstalk, InGaAsP/InP Total-Internal-Reflection Switch For Optical Cross-Connect Application*	
	32	BURKE, S.V., *Spectral Index Method Applied to Coupled Rib Waveguides*; Electronics Letters, VOL 25, No.9, Apr 27 1989, pg 605-606	
	33	BURNS, W.K. et al., *Mode Conversion in Planar-Dielectric Separating Waveguides*; IEEE Journal of Quantum Electronics, VOL QE-11, No.1, Jan 1975; pg 32-39	
	34	CAI, Y. et al., *A Novel Three-Guide Optical Coupler Using A Taper-Formed Waveguide*; j. Appl. Phys 69(5), Mar 1991; pg 2810-2814	
	35	CAVAILLES, J.A. et al., *First Digital Optical Switch Based on InP/GaInAsP Double Heterostructure Waveguides*; Electronics Letters, VOL 27, No.9, Apr 25 1991, pg 699-700	
	36	CHEN, R.T. et al., *Design and Manufacturing of WDM Devices*; Proceedings of SPIE VOL 3234	
	37	CLEMENS, et al., *Wavelength-Adaptable Optical Phased Array in SiO_2-Si*, Photonics Technology Letters, October 1995, Vol. 7-No 10, 1040-1041.	
	38	DAGLI, N. et al., *Analysis of Rib Dielectric Waveguides*; IEEE Journal of Quantum Electronics, VOL QE-21, No.4, Apr 1985, Pg 315-321	
	39	DAGLI, N. et al., *Theoretical and Experimental Study of the Analysis and Modeling of Integrated Optical Components; IEEE Journal of Quantum electronics*, VOL 24, No.11, November 1988; pg 2215-2226	
	40	DERI, R.J., et al., Low-Loss GaAs/AlGaAs Waveguide Phase Modulator Using A W- Shaped Index Profile; Sep 6 1988	
	41	DERI, R.J., et al., *Low-Loss Multiple Quantum Well GaInAs/InP Optical Waveguides*; Feb 21, 1989	
	42	DEVAUX, F. et al., *20Gbit/s Operation of a High-Efficiency InGaAsP/InGaAsP MQW Electroabsorption Modulator With 1.2-V Drive Voltage*; IEEE Photonics Technology Letters, VOL 5, No.11, Nov 1993, pg 1288-1290	
	43	DOERR, C.R. et al., *Chirping Of The Waveguide Grating Router For Free-Spectral-Range Mode Selection In The Multifrequency Laser*, IEEE Photonics Technology Letters, April 1996, Vol. 8-No. 4, pp 500-502	
	44	DOERR, C.R. et al., *Chromatic Focal lane Displacement in the Parabolic Chirped Waveguide Grating Router*, May 1997, Vol. 9-No. 5, pp 625-627	
	45	DRAGONE, c. *Efficient NxN Star Couplers Using Fourier Optics*, pp 479-48, March 1989, Vol. 7-No. 3, Journal of Lightwave Technology	
	46	FISCHER, et al., *Singlemode Optical Switches Based on SOI Waveguides with Large Cross-Section*, Electronics Letters, March 3, 1994, Vol. 30-No.5, pp. 406-408.	
	47	FISCHER, K. et al, *Sensor Application Of SiON Integrated Optical Waveguides On Silicon*; Elevier Sequoia, 1992; pg 209-213	
	48	FISH, G. et al., *Monolithic InP Optical Crossconnects: 4x4 and Beyond*, JWB2-1, Pg 19-21	
	49	FURUTA, H. et al, *Novel Optical Waveguide For Integrated Optics*, Applied Optics, VOL. 13, NO. 2, Feb. 1974, pg. 322-326	
	50	GINI, E. et al., *Low Loss Self-Aligned Optical Waveguide Corner Mirrors in InGaAsP/InP*, We P2.22	
	51	GOEL, K. et al *Design Considerations for Low Switching Voltage Crossing Channel Switches*; Journal of Lightwave Technology, VOL 6, No.6, June 1988; pg 881-886	

Examiner Signature		Date Considered	09/03/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1]Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two letter-code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached.

Please type a plus sign (+) inside the box ☒

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets necessary)

SHEET 3 OF 6

COMPLETE IF KNOWN	
Application Number	09/724,179
Filing Date	11/28/00
First Named Inventor	Lin
Group Art Unit	2874
Examiner Name	Unknown
Docket Number	LIGHT1320

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	52	GRANESTRAND, P. et al., *Integrated Optics 4x4 Switch Matrix with Digital Optical Switches*; Electronics Letters, VOL 26, No.1, Jan 4, 1990; pg 4-5	
	53	HIMENO, A. et al., *Loss Measurement and Analysis of High-Silica Reflection Bending Optical Waveguides*, Journal of Lightwave Technology, January 1988, Vol. 6-No. 1, 41-46.	
	54	HSU, K.Y. et al., *Photonics devices and Modules*, www.cc.nctu.edu.tw/~ctr/lee_mti/research_topic/photonic_devices_modules.htm, pp 1-3.	
	55	HUANG, T.C. et al., *Depletion Edge Translation Waveguide Crossing Optical Switch*; IEEE Photonics Technology Letters; VOL 1, No.7, Jul 1989, pg 168-170	
	56	HUTCHESON, L.D. et al., *Comparison of Bending Losses in Integrated Optical Circuits*; Optics Letters, VOL 5, No.6, Jun 1980, pg 360-362	
	57	INOUE, H. et al, *Low Loss GaAs Optical Waveguides*, Journal of Lightwave Technology, VOL LT-3, No.6, Dec. 1985; pg 204-209	
	58	IRACE, A. et al., *Fast Silicon-on-Silicon Optoelectronic Router Based on a BMFET Device*, Journal of Selected Topics in Quantum Electronics, January/February 2000, Vol. 6-No. 1, pp. 14-18.	
	59	ITO, F. et al., *Carrier-Injection-Type Optical Switch In GaAs With A 1.06-1.55 μm Wavelength Range*; Appl. Physics Letters, 54(2) Jan 9, 1989; pg 134-136	
	60	JACKMAN, N. et al., *Optical Cross Connects for Optical Networking*; Bell Labs Technical Journal, Jan-Mar. 1999; pg 262-281	
	61	JOHNSTON, I.R., et al., *Silicon-Based Fabrication Process For Production Of Optical Waveguides*; IEE Proc-Optoelectron., VOL 143, No.1, Feb 1996, pg 37-40	
	62	KAENKO, A. et al., *Athermal Silica-based Arrayed-waveguide Grating (AWG) Multiplexers with New Low Loss Groove Design*; TuO1-1, pg 204-206	
	63	KASAHARA, R. et al., *Low-Power Consumption Slica-Based 2x2 Thermooptic Switch Using Trenched Silicon Substrate*, IEEE Photonics Technology Letters, VOL 11, No. 9, Sep 1999, pg 1132-1134	
	64	KHAN, M.N. et al., *Fabrication-Tolerant, Low-Loss, and High-Speed Digital Optical Switches in InGaAsP/InP Quantum Wells*; Proc 21st Eur.Conf.on Opt.Comm.(ECOC '95-Brussels), pg 103-106	
	65	KHAN, M.N. et al., *High-Speed Operation of Quantum Well Electron Transfer Digital Optical Switches*; pg 102-102c	
	66	KIRIHARA, T. et al., *Lossless And Low Crosstalk 4x4 Optical Switch Array; Electronics And Communications In Japan*, Part 2, VOL 77, No.11, 1994, pg 73-81	
	67	KIRIHARA, T. et al., *Lossless and Low-Crosstalk Characteristics in an InP-Based 2x2 Optical Switch*, IEEE Photonics Technology Letters, VOL 5, No. 9 Sept 1993, pg 1059-1061	
	68	KOKUBUN, Y. et al., *Athermal Waveguides for Temperature-Independent Lightwave Devices*, November 1993, 1297-1298, Vol. 5-NO. 11, IEEE Photonics Technology Letters.	
	69	KOKUBUN, Y. et al., *Temperature-Independent Narrowband Optical Filter at 1.3 μm Wavelength by an Athermal Waveguide*, 10th October 1996, Vol. 32-No. 21, Electronics Letters	
	70	KOKUBUN, Y. et al., *Temperature-Independent Optical Filter at 1.55 μm Waveguide Using a Silica-Based Athermal Waveguide*, 19 February 1998, Vol. 34-No. 4, Electronics Letters	
	71	KOKUBUN, Y. et al., *Three-Dimensional Athermal Waveguides for Temperature Independent Lightwave Devices*, 21st July 1994, Vol. 30-No. 15, Electronics Letters	
	72	KOSTRZEWA, C. et al., *Tunable Polymer Optical Add/Drop Filter for Multiwavelength Networks*, Photonics Technology Letters, November 1997, Vol. 9-No. 11, 1487-1489.	
	73	LAAKMAN, K. D. et al., *Waveguides: Characteristic Modes Of Hollow Rectangular Dielectric Waveguides*; Applied Optics, VOL 15, No. 5, May 1976; pg 1334-1340.	

Examiner Signature		Date Considered	12/3/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1]Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two letter-code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached.

Please type a plus sign (+) inside the box ☒

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets necessary)

SHEET	4	OF	6

COMPLETE IF KNOWN	
Application Number	09/724,179
Filing Date	11/28/00
First Named Inventor	Lin
Group Art Unit	2874
Examiner Name	Unknown
Docket Number	LIGHT1320

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	74	LEE, T.P. et al., *$Al_xGa_{1-x}As$ Double-Heterostructure Rib-Waveguide Injection Laser*; IEEE Journal of Quantum Electronics; VOL QE-11, No.7, July 1975; pg 432-435	
	75	LIU, Y.L. et al., *Silicon 1x2 Digital Optical Switch Using Plasma Dispersion*; Electronics Letters, VOL 30, No.2, Jan20, 1994; pg 130-131	
	76	MAK, G. et al., *High-Speed Bulk InGaAsP-InP Electroabsorption Modulators with Bandwidth in Excess of 20 GHz*, IEEE Photonics Technology Letter, VOL 2, No.10, Oct 1990, pg 730-733	
	77	MARCATILI, E., *Improved Coupled-Mode Equations for Dielectric Guides*; IEEE Journal of Quantum Electronics, VOL QE-22, No.6, June 1986; pg 988-993	
	78	MARCATILI, E.A.J., *Bends in Optical Dielectric Guides*; The Bell System Technical Journal, Sep 1969; pg 2103-2132	
	79	MARCATILI, E.A.J., *Dielectric Rectangular Waveguide and Directional Coupler for Integrated Optics*, The Bell System Technical Journal, Sept 1969 pg 2071-2101	
	80	MARCATILI, E.A.J., *Slab-Coupled Waveguides*; The Bell System Technical Journal, April 1974; American Telephone & Telegraph Company, VOL 53, No.4, April 1974	
	81	MIRZA, A.R. et al, *Silicon Wafer Bonding For MEMS Manufacturing*, Solid State Technology, Aug 1999, pg 73-78	
	82	MOERMAN, I. et al., *A Review on Fabrication Technologies for the Monolithic Integration of Tapers with III-V Semiconductor Devices*; IEEE Journal of Selected Topics in Quantum electronics, VOL 3, No.6, Dec. 1997, pg 1308-1320	
	83	MÜLLER, G. et al., *First Low Loss InP/InGaAsP Optical Switch with Integrated Mode Transformers*; ThC12.10; Pg 37-40	
	84	NAYYER, J. et al., *Analysis of Reflection-Type Optical Switches with Intersecting Waveguides*, Journal of Lightwave Technology, VOL 6, No.6, June 1988; pg 1146-1152	
	85	NEGAMI, t. et al., *Guided-Wave Optical Wavelength Demultiplexer Using An Asymmetric Y Junction*; Appl. Phys. Lett. 54 (12), Mar 20, 1989; pg 1080-1082	
	86	NELSON, W. et al., *Optical Switching Expands Communications-Network Capacity*; Laser Focus World, Jun 1994, pg 517-520	
	87	NELSON, W.H. et al., *Wavelength-and Polarization-Independent Large Angle InP/InGaAsP Digital Optical Switches with Extinction Ratios Exceeding 20 dB*; IEEE Photonics Technology Letters, VOL 6, No.11, Nov. 1994; pg 1332-1334	
	88	NODA, Y. et al., *High-Speed Electroabsorption Modulator with Strip-Loaded GaInAsP Planar Waveguide*; Journal of Lightwave Technology, VOL LT-4, No.10, Oct 1986, pg 1445-1453	
	89	OFFREIN, B.J. et al., *Resonant Coupler-Based Tunable Add-After-Drop Filter in Silicon-Oxynitride Technology for WDM Networks*, Journal of Selected Topics in Quantum Electronics, Vol. 5-No. 5, 1400-1405.	
	90	OKAMOTO, K. et al., *Arrayed-Waveguide Grating Multiplexer With Flat Spectral Response*; Optics Letters, Jan 1 1995; VOL 20, No.1; Pg 43-45	
	91	OKAMOTO, K. et al., *Flat Spectreal Response Arrayed-Waveguide Grating Multiplexer with Parabolic Waveguide Horns*, Electronics Letters Online, July 15, 1996, No. 19961120, pp. 1661-1662.	
	92	OKAYAMA, H. et al., *8x8 Ti:$LiNbO_3$ Waveguide Digital Optical Switch Matrix*; IEICE Trans. Commun.; VOL E77-B, No.2; Feb. 1944; pg 204-208	
	93	OKAYAMA, H. et al., Dynamic Wavelength Selective Add/Drop Node Comprising Tunable Gratings, Electronics Letters Online, April 10, 1997, No. 19970607.	
	94	OKAYAMA, H. et al., *Reduction of Voltage-Length Product for Y-Branch Digital Optical Switch*, Journal of Lightwave Technology, VOL 11, No.2, Feb 1993; pg 379-387	
	95	OKUNO, M. et al., *Strictly Nonblocking 16x16 Matrix Switch Using Silica Based Planar Lightwave Circuits*, VOL 10, No.266, Sep 11, 1986	
	96	OOBA, N. et al., *Athermal Silica-Based Arrayed-Waveguide Grating Multiplexer Using Bimetal Plate Temperature Compensator*, Electronics Letters, 12th October 2000, Vol. 36, No. 21, pp 1800-1801	

Examiner Signature		Date Considered	12/3/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1]Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two letter-code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached.

Please type a plus sign (+) inside the box ☒

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets necessary)

SHEET 5 OF 6

COMPLETE IF KNOWN	
Application Number	09/724,179
Filing Date	11/28/00
First Named Inventor	Lin
Group Art Unit	2874
Examiner Name	Unknown
Docket Number	LIGHT1320

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	97	RENAUD, M. et al., *Compact Digital Optical Switches for Low Insertion Loss Large Switch Arrays on InP*; Proc. 21st Eur.Conf.on Opt. Comm. (ECOC '95-Brussels), pg 99-102	
	98	RICKMAN, A.G. et al., *Silicon-on-Insulator Optical Rib Waveguide Loss and Mode Characteristics*, Journal of Lightwave Technology, October 1994, Vol. 12-No. 10, pp 1771-1776	
	99	ROLLAND, C. et al., *10 Gbit/s, 1.56 µm, Multiquantum Well InP/InGaAsP Mach-Zehnder Optical Modulator*, Electronics Letters, Mar 4, 1993, VOL 29, No.5, pg 471-472	
	100	Santec Sales Brochure for year 2000 entitled "Optical Components"	
	101	SCHAUWECKER, B. et al, *Small-Size Silicon-Oxynitride AWG Demultiplexer Operating Around 725 nm*, IEEE Photonics Technology Letters, Vol. 12 No. 12, December 2000	
	102	SCHLACHETZKI, A. *Monolithic IO-Technology-Modulators and Switches Based on InP*; SPIE VOL 651 Integrated Optical Circuit Engineering III (1986), pg 60-86	
	103	SILBERBERG, Y. et al., *Digital Optical Switch*; Appl. Phys. Lett.; VOL 51, No.16, Oct 19, 1987, pg 152-154	
	104	SMIT, M.K., *New Focusing and Dispersive Planar Component Based on an Optical Phased Array*; Electronics Letters; Mar 31, 1988, VOL 24, No.7; Pg 385-386	
	105	SMITH, S.D. et al., *CW Operation of Corner Cavity Semiconductor Lasers*; IEEE Photonics Technology Letters, VOL 5, No.8, Aug 1993; pg 876-879	
	106	SNEH, A. et al., *Compact Low Crosstalk and Low Propagation Loss Quantum-Well Y-Branch Switches*; PDP 4-1 ~ 4-5	
	107	SOOLE, J.B.D. et al., *Use of Multimode Interference Couplers to Broaden the Passband of Wavelength-Dispersive Integrated WDM Filters*; IEEE Photonics Technology Letters, VOL 8, No.10, Oct 1996; pg 1340-1342	
	108	STOLL, L. et al., *1:8 Optical Matrix Switch on InP/InGaAsP with Integrated Mode Transformers*; Optical Switches and Modulators II, pg 531-534	
	109	STOLL, L. et al., Compact and Polarization Independent Optical Switch on InP/InGaAsP; TuB7.2; pg 337-340	
	110	STUTIUS, W. et al, *Silicon Nitride Films On Silicon For Optical Waveguides*, Applied Optics, VOL 16, No.12, Dec 1977, pg 303-307	
	111	SUGIE, T. et al.,*1.3-µm Laser Diodes with a Butt-jointed Selectively Grown Spot-Size Converter*; ThB2-6, IOOC95, pg 52-53	
	112	TADA, K. et al., *Bipolar Transistor Carrier-Injected Optical Modulator/Switch: Proposal and Analysis*, IEEE Electron Device Letters, VOL EDL-7, No.11, Nov 1986, pg 605-606	
	113	TAKADA, et al., *Optical Spectrum analyzer using Cascaded AWG's with Different Channel Spacings*, Photonics Technology Letters, July 1999, Vol. 11, No. 7, pp. 863-864.	
	114	TAKAHASHI, H. et al., *Arrayed Waveguide Grating for Wavelength Division Multi/Demultilexer with Nanometre Resolution*, PWG-NTT-7	
	115	TAKIGUCHI, K. et al, *Dispersion Compensation Using a Planar Lightwave Circuit Optical Equalizer*, Photonics Technology Letters, April 1994, Vol. 6, No. 4, pp. 561-564.	
	116	TIEN, P.K. et al., *Formation of Light-Guiding Interconnections in an Integrated Optical Circuit by Composite Tapered-Film Coupling*; Applied Optics, VOL 12, No. 8, Aug 1973; pg 1909-1916	
	117	TOYODA et al., *Thermoplastic Switch and Wavelength Tunable Filter using Polymer Waveguides*, Abstract of paper presented at Opticomm 2001 on August 22, 2001.	
	118	TREYZ, G.V. et al., *Silicon Optical Modulators at 1.3 µm Based on Free-Carrier Absorption*; IEEE Electron Device Letters, VOL 12, No.6, June 1991; pg 276-278	
	119	TSUDA, H. et al., *Performance Analysis of a Dispersion Compensator Using Arrayed-Waveguide Gratings*, Journal of Lightwave Technology, August 2000, Vol. 18-No.8, pp 1139-1147.	

Examiner Signature		Date Considered	12/3/03	Examiner Signature	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1]Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two letter-code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached.

Please type a plus sign (+) inside the box ☒

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-003

U.S. Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Action of 1995, no persons are required to response to a collection of information unless it contains a valid OMB number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets necessary)

SHEET	6	OF	6

COMPLETE IF KNOWN	
Application Number	09/724,179
Filing Date	11/28/00
First Named Inventor	Lin
Group Art Unit	2874
Examiner Name	Unknown
Docket Number	LIGHT1320

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[6]
	120	TSUDE, H. et al., *Second- and Third-Order Dispersion Compensator Using a High-Resolution Arrayed Waveguide Grating*, IEEE Photonics Technology Letters, May 1999, Vol. 11-No. 5, 569-571.	
	121	VINCHANT et al, *InP 4x4 Digital-Optical-Switch Module For Multiwavelength Cross-Connect Applications*; OFC '95 Technical Digest, Thursday ThK2, pg 281-282	
	122	VINCHANT, J.F. et al., *First Polarisation insensitive 4x4 Switch matrix on InP with Digital Optical Switches*, TuB7.3, pg 341-344	
	123	VINCHANT, J.F. et al., *InP Digital Optical Switch: Key Element for Guided- Wave Photonic Switching*; IEE Proceedings-J, VOL 140, No.5, Oct 1993; pg 301-307	
	124	VINCHANT, J.F. et al., *Low Driving Voltage or Current Digital Optical Switch on InP for Multiwavelength System Applications*; Electronics Letters, VOL 28, No.12, Jun 4, 1992; pg 1135-1137	
	125	WAKITA, K. et al., *Long Wavelength Waveguide Multiple Quantum Well Optical Modulators*; IEEE Journal of Quantum Electronics, VOL QE-23, No.12, Dec 1987, pg 2210-2215	
	126	WANRU, Z. et al., *Total Internal Reflection Optical Switch with Injection Region Isolated by Oxygen Ion Implantation*; pg 1-10	
	127	YAMADA, et al., *Cross Talk Reduction in a 10 GHz Spacing Arrayed-Waveguide Grating by Phase-Error Compensation*, Journal of Lightwave Technology, March 1998, Vol. 16-No. 3, pp. 364-371.	
	128	YANAGAWA, H. et al., *Polarization-and Wavelength-Insensitive Guided-Wave Optical Switch with Semiconductor Y Junction*; Journal of Lightwave Technology, VOL 8, No.8, Aug 1990, pg 1192-1197	
	129	YU, S. et al., *High Speed All-Optical Packet Routing Using A Vertical Coupler Crosspoint Space Switch*	
	130	YU, S. et al., *Ultralow Cross-Talk, compact integrated optical crosspoint space switch arrays employing active InGaAsP/InP Vertical Waveguide Couplers*, Integrated Optical Crosspoint Switch Arrays, Siyuan Yu et a, CPD24-2	
	131	ZENGERLE, R. et al., *Tapered Twin Waveguides For Spot-Size Transformation In InP*; TheB2-5; IOOC 95; pg 50-51	
	132	ZIRNGIBL, M. et al., *Digitally Tunable Laser Based On The Integration Of A Waveguide Grating Multiplexer And An Optical Amplifier*, IEEE Photonics Technology Letters, April 1994, Vol. 6-No. 4, pp 516-517	
	133	ZUCKER, J.E. et al., *Strained Quantum Wells for Polarization-Independent Electrooptic Waveguide Switches*, Journal of Lightwave Technology, VOL 10, No.12, Dec 1992, pg 1926-1930	

Examiner Signature		Date Considered	12/3/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1]Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two letter-code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard St. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached.